

## PRACTICE BRIEF

# Assessing Compensatory Strategies and Motivational Factors in High-Achieving Postsecondary Students with Attention Deficit/Hyperactivity Disorder

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### **Abstract**

Research speculates that high-achieving college students with attention deficit/hyperactivity disorder (ADHD) may demonstrate a set of compensatory strategies and experience areas of difficulty and motivational factors that differ from the general ADHD populace. This Practice Brief used informal surveys with seven undergraduates with ADHD who had achieved a cumulative GPA of 3.0 or higher. Their feedback provides insight into factors related to their challenges and successes. This article creates opportunities for more formal investigations of these factors in follow-up studies and informs suggestions for professional practice.

*Keywords:* *College students, Attention Deficit/Hyperactivity Disorder, high achievement, compensatory strategies*

### **Literature Review**

Prior to the 1970s, attention deficit/hyperactivity disorder (ADHD) was thought to be a disability that primarily existed in childhood (Barkley, Murphy, & Fischer, 2008). However, research now estimates that approximately 50% to 70% of children who have the disorder maintain symptoms into adulthood (Ramsay & Rostain, 2006). Although students with ADHD are less likely than their peers to graduate from high school and attend college, the number of postsecondary students with the disorder has risen considerably since the 1960s with approximately 2% to 8% of postsecondary students self-reporting ADHD (Weyandt & DuPaul, 2006).

Despite the continued influx of students with ADHD into postsecondary education, research on college students with the disorder suggests a bleak academic future. Barkley et al. (2008) reports that only 21% of children with ADHD ever enroll in postsecondary education as opposed to 78% without the disorder and only 5% of those with the disorder actually graduate (Barkley, 2002). Overall, research

has found that postsecondary students with ADHD have decreased functioning in adapting to the unique demands of college life. As a result, they are more likely to report academic problems, study skill deficits, organizational difficulties, lower levels of self-esteem, and decreased social functioning than their non-disabled peers (Heiligenstein, Guenther, Levy, Savino, & Fulwiler, 1999; Shaw-Zirt, Popali-Lehane, Chaplin, & Bergman, 2005).

Even though college students with ADHD are more likely to report having academic difficulties, few studies have examined academic achievement in postsecondary students with the disorder (Blase et al., 2009; Heiligenstein et al., 1999). From the studies that have been conducted, results suggest that college students with ADHD earn poorer grades, have lower GPA's, and are five times more likely to be placed on academic probation than those without the disorder (Green & Rabiner, 2007; Heiligenstein et al., 1999; Schwanz, Palm, & Bralier, 2007; Weyandt & DuPaul, 2006). Although precise figures are not available, studies have found that college students with ADHD have GPA's approximately 0.5 to

1 standard deviation below that of students without the disorder (Blase et al., 2009; Heiligenstein et al., 1999; Weyandt & DuPaul, 2006).

Despite these findings, it would be a substantial oversight to assume that all postsecondary students with ADHD fail to succeed in college and have low GPA's. Students with ADHD who are successful at maintaining a high GPA may represent a unique subset of the college ADHD populace and diverge from lower achieving students with the disorder. Previous literature has speculated that college students with ADHD who maintain a high GPA possess higher levels of motivation and ability, better compensatory strategies, are more knowledgeable about study strategies, performed better in elementary and secondary school, have fewer learning disabilities, and have more social and parental support than less academically successful college students with the disorder (Glutting, Monaghan, Adams, & Sheslow, 2002; Heiligenstein et al., 1999; Kaminski, Turncock, Rosen, & Laster, 2006; Reaser, Prevatt, Petscher, & Proctor, 2007; Smith, Cole, Ingram, & Bogle, 2004).

To date, only Kaminski et al.'s (2006) study has addressed academically high-achieving college students with ADHD as a unique subpopulation and identified differences between high-achieving and lower achieving students with the disorder in regards to coping mechanisms utilized, sources of motivation, and obstacles to success. Kaminski et al. differentiated between academically high-achieving and low-achieving students with ADHD by separating 82 college students with ADHD into two groups based on their mean GPA falling above or below the combined group's mean GPA of 2.61. Students whose mean GPA fell above 2.61 were placed in the high success group and students whose GPA fell below 2.61 were placed into the low success group (Kaminski et al., 2006). They assessed the coping strategies, obstacles to success, and sources of motivation in both groups utilizing an open-forum questionnaire in which students were asked to write about each of the aforementioned areas. Furthermore, Kaminski et al. assessed the coping resources available to both high and low achieving students with ADHD using the Coping Resources Inventory for Stress (CRIS).

Surprisingly, results revealed that less successful college students with ADHD reported utilizing more coping strategies than highly successful college students with the disorder. However, no statistically significant themes emerged that differentiated the high success group from the low success group in regards to

coping mechanisms utilized, sources of motivation, and obstacles to success. Results did reveal general themes between both groups in that the most commonly cited coping methods were working longer and harder than non-disabled peers, followed by having social support, and lastly possessing specific study, time management, and organizational skills (Kaminski et al., 2006).

Kaminski et al. (2006) also studied factors that influenced the intrinsic motivation of postsecondary students with ADHD. Students' most frequently-reported motivational influences were "making others proud" and "not letting others down," followed by succeeding in college being a "long term career goal" (Kaminski et al.). Finally, the most commonly cited obstacle to academic success was procrastination, followed by an inability to use organization, time management, and study skills. Ultimately, the authors speculated that highly successful college students with ADHD may have reported using fewer coping mechanisms than their lower achieving peers due to their quality and quantity of time studying, consistency of using study skills, and personality traits such as determination.

## The Problem

Given the rise in numbers of students with ADHD attending college, there is a need to learn more about the compensatory strategies and motivational factors that help some postsecondary students with ADHD succeed academically in light of the everyday hindrances of the disorder.

## Students and Location Information

Seven Caucasian undergraduate students from a small, private university in the northeastern United States provided information used in this Practice Brief. Six (85.7%) students were female and one (14.3%) was male. Two (28.6%) of the students were freshman, one (14.3%) was a sophomore, two (28.6%) were juniors, and two (28.6%) were seniors. All students self-reported having ADHD. Three (42.9%) students indicated they were currently registered with the Disability Services (DS) office and four (57.1%) reported not being registered with the DS office. Students' academic success was reflected by their cumulative grade point average (GPA), which ranged from 3.05 to 4.09 with a mean of GPA of 3.62 ( $SD = .392$ ). One student was able to obtain a 4.09 GPA as the university utilized a 4.3 grading scale as opposed to the standard 4.0 grading metric.

## Strategy

Students were recruited for this pilot study via flyers posted across campus along with an email being sent out by the DS office describing the study. Interested students contacted the author and submitted their most recent college transcript. Students with a self-reported diagnosis of ADHD along with a cumulative GPA of 3.0 or higher were eligible to participate. A self-reported diagnosis of ADHD was used as a criterion for participation as opposed to asking students to furnish proof of their disorder because many students with ADHD may not make use of the disability services office (Wagner, Newman, Cameto, Garza, & Levine, 2005). Additionally, a cumulative GPA of 3.0 or higher was used to differentiate high-achieving college students with ADHD from lower achieving students with the disorder as it is the minimum GPA required for students' inclusion on honor rolls and is also the minimum GPA for students wishing to apply to graduate programs at the university.

Five informal paper-based surveys and a student demographic form were developed by the author following a review of the literature on the coping strategies and hindrances faced by college students with ADHD. Particular emphasis was placed on Kamineski et al.'s (2006) study. Interested students met with the researcher on an individual basis for one meeting and were asked to complete the five surveys and student demographic form in the order they are presented.

*Methods to ensure success survey.* The Methods to Ensure Success Survey asked students to identify ways in which they maintained their GPA. The survey began with one general statement that read, "In order to maintain my grade point average I...." After reading the introductory statement, 40 compensatory strategies were listed to complete the initial general statement. Students were asked to place "X's" next to each compensatory strategy they used to maintain their GPA. For example, a student may have placed an "X" next to the compensatory strategy of "use post-it notes" making the whole statement read, "In order to maintain my grade point average, I use post-it notes" (See Appendix A).

*Obstacles to success scale.* The Obstacles to Success Scale asked students to identify ways in which obstacles hindered their success in college. After reading the introductory statement, "Some obstacles that hinder my success in college include...." students were asked to place "X's" next to as many of the 26

obstacles to success items they identified with to complete the initial statement. For example, a student may have placed an "X" next to the obstacle of success of "procrastinating on assignments" making the whole statement read, "Some obstacles that hinder my success in college include procrastinating on assignments" (See Appendix B).

*Sources of motivation scale.* The Sources of Motivation Scale asked students to rate the top three personal reasons they maintained their current high GPA. Fourteen personal reasons were listed and included statements such as "to prove to myself that I can succeed" and "because my fraternity/sorority requires a certain GPA." Students were asked to rank order their top three reasons for maintaining their high GPA by writing the numbers 1 through 3 next to the statements provided. If students did not find that one of the 14 statements listed applied to them, an "other" personal reason section for maintaining a high GPA was provided. In the "other" section, a space was provided for students write in a personal reason for maintaining their high GPA and rank order the reason by writing the number 1 through 3 next to it (See Appendix C).

*Factors that decrease motivation scale.* The Factors that Decrease Motivation Scale asked students to identify factors that decrease their motivation in maintaining their current GPA. After reading the introductory general statement, "Factors that decrease my motivation to maintain my current GPA include...." students were asked to place "X's" next to as many of the 30 items that they identified with to complete the initial statement. For example, a student may have placed an "X" next to the factor of "having a poor memory," making the whole statement read, "Factors that decrease my motivation to maintain my current GPA include having a poor memory" (See Appendix D).

*Social support survey.* The Social Support Survey consists of two components. The first component asked students to identify avenues of social support they have when experiencing difficulty coping with their ADHD. After reading the introductory statement, "When I have difficulty coping with my disability, I use the following social resources for support on a daily basis...." students were asked to place "X's" next to as many of the 24 items they identified with. For example, a student may have placed an "X" next to the social support of their "friends" or "father" to identify avenues for social support. If students did not find a social support mentioned in the 24 items listed, an "other" social support

section was included in which students could write down a social support that was not listed. The second component of the Social Support Survey consisted of having students write down the social support they turn to most when having difficulty coping with their ADHD (See Appendix E).

*Demographic form.* A demographic form was developed to obtain basic personal information about students who completed the surveys. On the demographic form, students were asked to identify the following information: gender, date of birth, enrollment status (full- or part-time student), major area of study, GPA, year in school (i.e. freshmen, sophomore etc.), ethnicity, and whether they were registered with the campus disability office.

### Observed Outcomes

Participant responses to survey items were numerically coded in order to perform a univariate analysis on each survey item using the Statistical Package for Social Sciences (SPSS) version 16.0. Responses were coded “1” if a student endorsed a survey item and “0” if a student did not endorse a survey item. Based on student responses, a relative frequency distribution was created in SPSS yielding a percentage of endorsements for each survey item.

Results revealed that these seven high-achieving college students with ADHD used an array of compensatory strategies to assist them in maintaining their GPA. All seven students (100%) reported using to-do lists and 85.7% indicated they studied in a quiet location, worked on assignments in short spurts, and set up short-term goals concerning schoolwork to ensure academic success. In regards to obstacles to success, 85.7% students indicated that “zoning out” in class hindered their success and 71.4% revealed that an irregular sleep schedule, poor memory, and difficulty concentrating while reading course material negatively impacted their academic performance.

Students answered a number of survey questions about motivation. The most frequently-reported reason students wanted to maintain a high GPA was to prove to themselves that they could succeed (71.4%), followed by 42.9% citing that they wanted to maintain a high GPA to make their parents proud. The most frequently-reported factor for decreasing a student’s motivation was boredom with coursework (85.7%), followed by having a poor memory and feelings of uncertainty over their academic performance (71.4%). All students

(100%) indicated that they used their friends as a means of social support when they were having difficulty coping with their disability and 71.4% indicated they used their mother for this support.

### Implications

Research suggests that an increasing number of young adults with ADHD are pursuing a postsecondary education, but this growing population of undergraduates continues to report significant difficulty with retention and graduation compared to peers without disabilities. With the exception of the current study, only Kaminski et al. (2006) sought to assess the coping mechanisms, sources of motivation, and obstacles to success faced by academically high-achieving college students with ADHD as defined in this article.

Results from this small pilot study support speculation that high-achieving college students with ADHD utilize a number of compensatory strategies and motivational factors to maintain their high GPA. The seven students who provided information for this exploration frequently used “to-do” lists, worked on assignments in short spurts, and set up short-term goals to assist them in being academically successful. Each of these strategies support existing literature’s claims that academically successful college students with ADHD possess specific study, time management, and organizational skills that assist them in maintaining their high GPA (Kaminski et al., 2006; Reaser et al., 2007). Additionally, these students reported a desire to maintain their GPA in order to prove to themselves that they could succeed. This finding supports speculation by existing literature that high-achieving college students with ADHD may possess higher levels of motivation and personality traits, such as determination, that promote their academic success (Kaminski et al., 2006). Furthermore, these students utilized social support as a means of coping with their disability. All seven students revealed that they turned to their friends most often when dealing with the everyday hindrances of the disorder.

Although Kaminski et al.’s (2006) study found that the most commonly cited obstacle to success was procrastination, these students reported that “zoning out” in class was their greatest hindrance to academic success. Differences found between Kaminski et al.’s (2006) study and the current exploration may be due to the different measures used to assess obstacles to academic success. This investigation adds to the literature by exploring factors that decrease motivation

in high-achieving college students with ADHD. Seven students reported that boredom with coursework, poor memory, and feelings of uncertainty over academic performance were the most frequent causes of decreased motivation.

Practitioners in the university setting can utilize these insights to encourage lower achieving students with ADHD to develop specific study, time management, and organizational strategies and to pursue interventions to assist them in becoming academically successful. Additionally, these students' survey responses emphasize the importance of utilizing friends as a critical social support when having difficulty coping with ADHD. Professionals at the postsecondary level should encourage students with ADHD to develop and recognize the importance of social supports as a vital coping resource. Moreover, college practitioners may want to assist postsecondary students with ADHD in balancing social activities with academic demands through forming social support groups and time management workshops. Lastly, professionals in the university setting should help students with ADHD internalize their motivation to succeed through training sessions that assist them in setting up short and long term goals paired with rewards for achieving those goals.

The areas explored in this practice brief could be studied in a more rigorous manner by utilizing a larger and more diverse sample size of college students with ADHD from multiple institutions. Moreover, future research should include comparison groups of high- and low-achieving students with ADHD along with a control group to further evaluate the compensatory strategies, motivational factors, and areas of difficulty that each utilizes or encounters. Additional research should assess whether there are differences between the quality and quantity of time spent studying and consistency of using study skills between high and low-achieving students with ADHD.

Furthermore, future research should utilize more rigorous methods for identifying students diagnosed with ADHD beyond self-report. In addition, researchers should investigate to what extent co-morbid psychiatric conditions influence the academic success of college students with ADHD (Green & Rabiner, 2012). Perhaps McGough and Barkley's (2004) suggestions of reducing the number of symptoms required for ADHD diagnosis in young adults may be better suited for identifying college students with ADHD, as current *Diagnostic and Statistical Manual of Mental Disorders'*

([DSM-IV-TR]; American Psychiatric Association [APA], 2000) criteria may be too stringent for adults with the ADHD (Green & Rabiner, 2012). Ultimately, more methodologically sound research involving high-achieving college students with ADHD is needed to promote the success and retention of postsecondary students with this disorder.

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